From: John Edwards
To: Dinkins, Darlene; Wasem, Russell
Subject: Re: EPA response to your letter conerning bromethalin
Date: Sunday, November 17, 2013 6:10:57 PM

To whom it may concern,

To give an update on the situation, me, and other emergency and toxicologist veterinarians I talk to, are NOT seeing a decrease in the amount of animals exposed to rodenticide since sending the last communication.

Although we do acknowledge seeing less treatment options available as we see more and more newer generation rodenticides sold to consumers. Again, the options allowed for the "allowed" rodenticides are inducing emesis, repeated doses of activated charcoal, and supportive care to control neurologic signs as treatment options.

The ones who are brought in immediately typically do good if we can induce emesis. The ones that aren't caught quickly I have seen die a dramatic death with seizures, hyperthermia, tremors, and other neurologic signs despite supportive care.

It is still my opinion that the warfarin was definitely the lesser of two evils, and I would ask the EPA to rethink their decision on banning that rodenticide, or ban ALL commercial rodenticides across the board (including the zinc phosphide, which still poses a significant threat to the health of ER veterinarians in the areas it is commonly used. Pets WILL find a way to get into it, even more than children. The teeth have a way of defeating all faith I have had in bait stations. This was obviously a decision made without dogs in mind.

Thank you for hearing my input.

Sincerely,
John Edwards, DVM
985-237-5100

On Monday, August 26, 2013 2:16 PM, "Dinkins, Darlene" <Dinkins.Darlene@epa.gov> wrote:
Dear Dr. Edwards:

Thank you for your email of June 25, 2013, to David Gray with the United States Environmental Protection Agency regarding your concerns with the rodenticide bromethalin. I appreciate the opportunity to respond on behalf of the agency since my office is responsible for regulating pesticides in the United States.

The EPA is committed to ensuring that rodenticide products marketed in the United States can be used safely, without unreasonable risks to human health and the environment, and are effective when used as directed by the label instructions. In May 2008, the EPA required new safety measures to protect children, pets and non-target wildlife from accidental exposure to rodenticide bait products. The measures included removing products containing the second

generation anticoagulants from the consumer market, as well as requiring that products marketed to residential consumers contain a bait station and a bait form that is reasonably expected to remain in the bait station.

The EPA's decision was based, in part, on reports from the American Association of Poison Control Centers that since 1993, 10,000 to 15,000 rodenticide exposures to children are reported each year. In addition, thousands of pet exposures that result in hundreds of pet deaths occur each year, and non-target wildlife poisonings to second generation anticoagulants is significant and well documented. The EPA determined that the risk to children and pets was unreasonable because these exposures are avoidable through the use of bait stations. Risks to non-target wildlife could be minimized by the use of different active ingredients on the consumer market. The newly registered consumer use products that comply with EPA's decision are equally effective in controlling mice and rats, and they offer the advantage of increased protection for children, pets, and non-target wildlife such as birds, squirrels, and foxes.

You express concern about pet exposures to bromethalin rodenticide products since many of the new consumer products that comply with the EPA's risk mitigation measures contain this compound. Specifically, because an antidote (vitamin K) is available to treat pets accidentally poisoned by the second generation anticoagulants, you believe those compounds are safer to use around pets than bromethalin, which has no antidote.

We would note, first, that the second generation anticoagulant rodenticides have been involved in numerous reported pet exposures that have the potential to result in severe outcomes including death of the pet. These exposures are generally due to the accessibility of the rodenticides for pets to ingest. To minimize pet exposure to rodenticide products used in homes, the EPA has required that all rodenticide bait products marketed to general and residential consumers be sold only with bait stations and a bait form that is able to be secured in the bait station. Pelleted bait products and bait sold without a bait station are prohibited from being sold on the residential consumer market.

While vitamin K (often augmented with fresh frozen plasma) is an antidote for all seven anticoagulants (warfarin, chlorophacinone, diphacinone, brodifacoum, bromadiolone, difenacoum, and difethialone), due to the long half lives of the second generation anticoagulants (brodifacoum, bromadiolone, difenacoum, and difethialone) vitamin K therapy is sometimes necessary for weeks and months. Conversely, while there are no true antidotes for the other three rodenticide active ingredients (bromethalin, cholecalciferol and zinc phosphide), there are medical treatments designed to lessen absorption and/or to address symptoms.

Further, bromethalin, which has become more prevalent on the residential consumer rodenticide market, is much less toxic to dogs (LD_{50} 4.8 mg/kg) than the second generation anticoagulants brodifacoum (LD_{50} range 0.2 – 3.6 mg/kg) and difethialone (LD_{50} 4 mg/kg). Additionally, cholecalciferol and zinc phosphide are not active ingredients in any rodenticide residential products approved for indoor use. It is highly unlikely the agency would consider allowing the registration of a residential consumer product labeled for indoor use with bait

containing zinc phosphide.

Reporting any pesticide-related animal illness will help improve the quality of the EPA's animal incident data base as well as our understanding of the effectiveness of pesticide labeling. We encourage veterinarians to submit incident reports for every animal they treat that has been exposed to rodenticides. We are especially interested in specifics on the rodenticide incidents. We use this information to inform our evaluations of these compounds with regard to accidental pet exposure. Please submit any incident reports using our quick and easy-to-use Veterinary Pesticide Adverse Effects Reporting portal at http://pi.ace.orst.edu/vetrep/. In addition, consider reporting the incident to the product's manufacturer. Manufacturers are required by law to submit reports of adverse effects to the EPA.

In summary, we believe our rodenticides mitigation decision and the required bait stations will reduce accidental pet exposure. However, if significant numbers of accidental pet exposures remain after we have fully implemented our mitigation decision and removed second generation anticoagulant rodenticides from the homeowner market, we will consider additional mitigation options to reduce accidental exposures.

Again, thank you for your email. If you have further questions, please contact Rusty Wasem at wasem.russell@epa.gov or (703) 305-6979.

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Sincerely,

Anne

Overstreet

Chief, Communication Services

Branch

Field and External Affairs Division